STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER RIGHTS
P.O. BOX 2000
SACRAMENTO, CA 95812-2000

INITIAL STUDY

I. BACKGROUND

Project Title: Water Right Application 32139 (A032139)

Applicant: King Ridge Vineyards, LLC
c/o Dave Del Dotto
1291 Zinfandel Lane
St. Helena, CA 94574

Applicant's Contact Person: Guadalupe S. Chavarria
P.O. Box 812
Windsor, CA 95492
(707) 799-5432

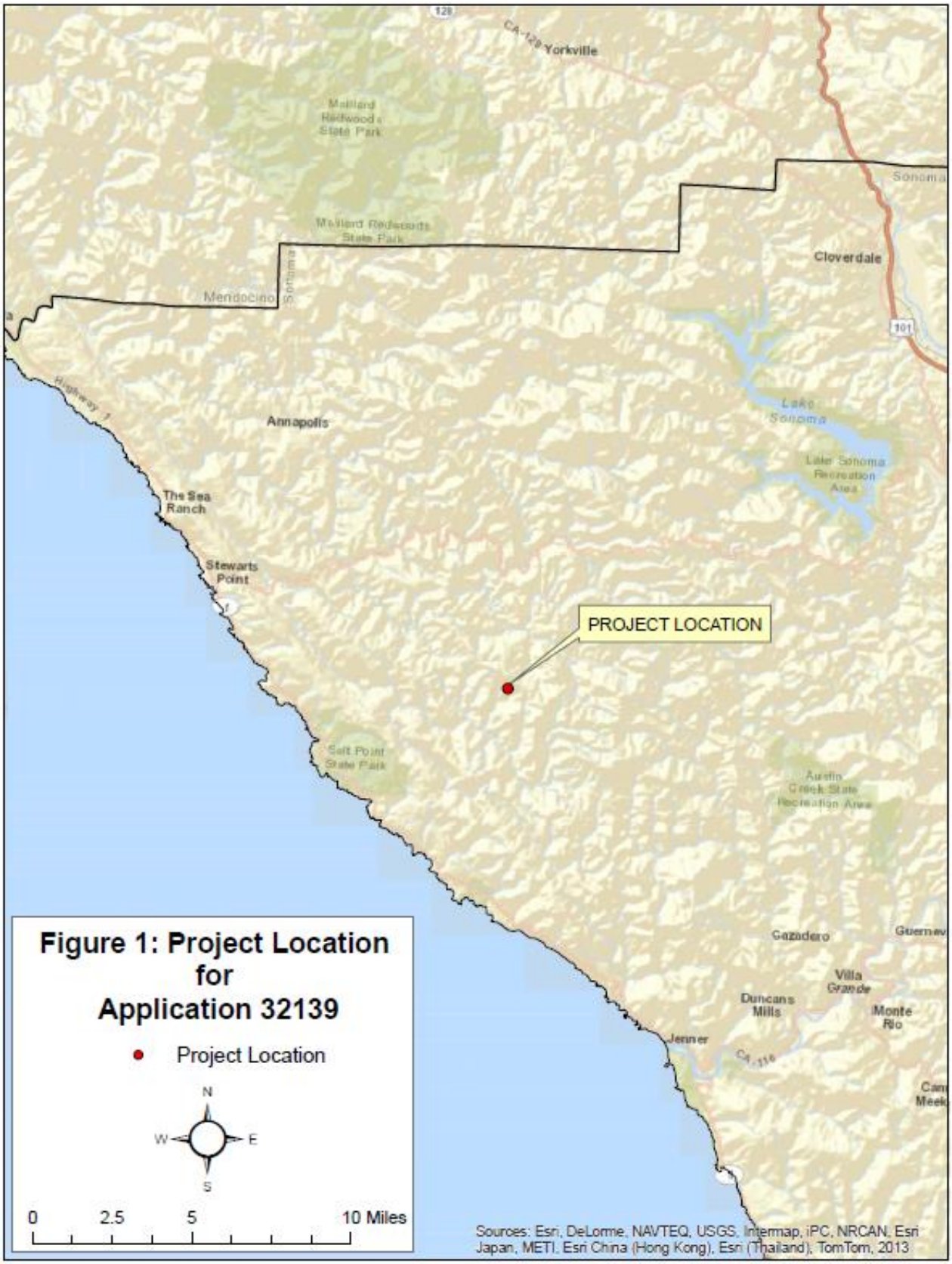
General Plan Designation: Resources and Rural Development

Zoning: Timberland Production

Introduction

The project is located at 31111 King Ridge Road within Township 9N, Range 12W of the "Fort Ross, California" U.S. Geological Survey (USGS) 7.5 minutes topographic quadrangle approximately 15 miles northwest of the unincorporated community of Cazadero (Figure 1).

Water Right Application 32139 (Project) was filed on June 24, 2013 with the State Water Resources Control Board (State Water Board), Division of Water Rights (Division) by King Ridge Vineyards, LLC (Applicant). The Project proposes the collection to storage of up to 12 acre-feet per year (afy) and for direct diversion of up to two afy from two Points of Diversion (PODs 1, 2). POD 1 is a proposed well that will be located adjacent to an unnamed stream (Unnamed Stream 1) tributary to Wild Cattle Canyon thence Marshall Creek thence the South Fork Gualala River, and POD 2 is a proposed reservoir that will be located on an unnamed stream (Unnamed Stream 2) which is tributary to Unnamed Stream 1. The Project proposes a season of diversion from October 15 of each year to May 15 of the succeeding year. The purpose of use is irrigation of 42.5 acres of existing vineyards (Figure 2).


Yorkville
Cloverdale
Annapolis
The Sea Ranch
Stewarts Point
PROJECT LOCATION
Lake Sonoma
Gazadero
Villa Grande
Duncans Mills
Monte Rio
Jenner
Figure 1: Project Location for Application 32139
Project Location
N
W
E
S
0
2.5
5
10 Miles
Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013

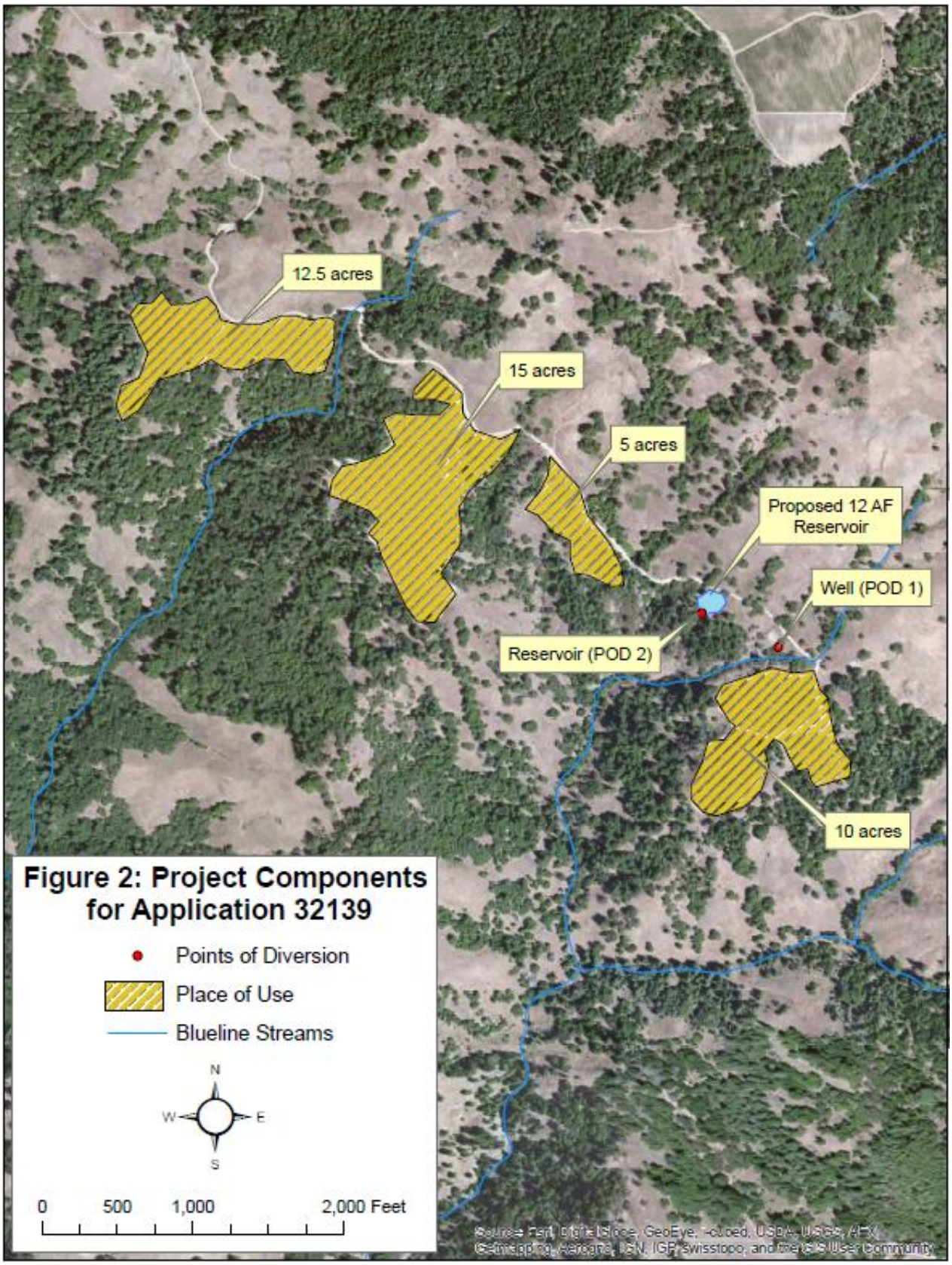

12.5 acres
15 acres
5 acres
Proposed 12 AF Reservoir
Well (POD 1)
Reservoir (POD 2)
10 acres
Figure 2: Project Components for Application 32139
Points of Diversion
Place of Use
Blueline Streams
N
W
E
S
0
500
1,000
2,000 Feet

Table 1: Water Right Characteristics

Application	Diversion	Diversion Amount[1]	Diversion Season	Purposes of Use	Proposed Place of Use
32139	Storage	12 acre-feet	October 15 – May 15	Irrigation	42.5 acres
	Direct	0.22 cubic foot per second			
[1]Total Combined Diversion: Not to exceed 14 ac-ft per year					

Table 2: Location of Points of Diversion

POD	Location	Within	Section	Township	Range	B&M
1 (Well)	Unnamed Stream 1 tributary to Wild Cattle Canyon	SW ¼ of NE ¼	19	9N	12W	MD
2 (Reservoir)	Unnamed Stream 2 tributary to Unnamed Stream 1					

Table 3: Location of Place of Use

Use Within	Section	Township	Range	B&M	Acres	Existing
NW ¼ of NW ¼	19	9N	12W	MD	6	Yes
NE ¼ of NW ¼					0.5	
SW ¼ of NW ¼					5.5	
SE ¼ of NW ¼					20.2	
NE ¼ of SW ¼					0.3	
NW ¼ of SE ¼					10	
				Total:	**42.5**	

Project Background and Environmental Setting

The California Environmental Quality Act (CEQA) baseline date for the Project is June 24, 2013, which is the date Application 32139 was received by the State Water Board. This Initial Study assesses impacts involved with the construction of the well, reservoir, piping infrastructure, diversion of 14 acre-feet of water, and irrigation of 42.5 acres of existing vineyard. Table 4 provides an overview of Project components in relation to the CEQA baseline date.

Table 4: CEQA Baseline and Project Components

Existing Project Components at CEQA Baseline	CEQA Baseline Date	Project Components Assessed in this Initial Study

• 42.5 acres of existing vineyards	June 24, 2013	• Construction of the following:
		  ○ Well
		  ○ Reservoir
		  ○ Piping infrastructure
		• Diversion of up to 14 acre-feet of water per year
		• Irrigation of 42.5 acres of vineyard

The Project is located in northwest Sonoma County within the Gualala River watershed, approximately 15 miles northwest of the unincorporated community of Cazadero. The Project area is accessible from King Ridge Road through a private unimproved road that is approximately two miles east of the intersection of King Ridge Road and Tin Barn Road. The area is located in the California Coast Range geomorphic province, which is considered a seismically active region. Elevation at the Project area ranges from 1,400 to 1,600 feet.

The climate within Sonoma County is highly variable and ranges from a moderate to cool, coastal climate in the west to a more typical Mediterranean climate in the east. The Project is located within the North Coast Ranges and has a relatively strong coastal influence. The Project area is within climate zone 15 “Coast Thermal Belts,” which is characterized as coastal climate that is dominated by ocean weather about 85% of the time and by inland weather about 15% of the time. The Project area receives approximately 70 inches of annual rainfall with the majority of rain falling between the months of November through April.

The Project area is characterized by grassland and chaparral to the north and west, grassy canyon to the south, and a shallow depressed area with two ephemeral streams to the east. The Project area has historically been used for agriculture and timber harvesting. The past use is such that native plant communities have been altered by non-native grassland species. Primary vegetation within the Project area consists of ruderal grasslands and Cismontane Woodland.

Regulatory Setting

State Water Resources Control Board, Division of Water Rights – Water Rights Administration

According to the California Constitution and the Water Code, water is protected for the use and benefit of all Californians. While California's waters cannot be owned, entities may be granted the right to divert and use water. The State Water Board is the only agency with authority to administer water rights in California. In most cases, with the exception of riparian rights, rights can only be granted to divert surface water through the issuance of appropriative permits and licenses. Holders of water rights, such as permits and licenses, may also seek to make a change to a water right, which also requires approval of the State Water Board. In order to obtain a permit, an application must be submitted to the State Water Board. In order to obtain a license, a permit must first be granted.

Before an application can be approved and a permit issued, the State Water Board must find that (1) the intended use is beneficial and (2) there is unappropriated water available for appropriation. (Wat. Code, §§ 1243, 1375; Cal. Code Regs., tit. 23, § 695.) When determining the availability of unappropriated water, the State Water Board must consider the amount of water necessary to satisfy prior rights to divert and use water and the amount of water required for recreation and the preservation and enhancement of fish and wildlife resources.

The State Water Board has adopted a Policy for Maintaining Instream Flows in Northern California Coastal Streams (Policy) that establishes principles and guidelines for maintaining instream flows in northern California coastal streams for the purposes of water right administration (Wat. Code, § 1259.4, subd. (b).). The Policy contains guidelines for evaluating

whether a proposed water diversion, in combination with existing diversions in a watershed, may affect instream flows needed for the protection of fishery resources. Accordingly, the Policy prescribes protective measures regarding the season of diversion, minimum bypass flow, and maximum cumulative diversion. The Policy also contains limitations on the construction of new onstream dams and approval of existing onstream dams to reduce adverse impacts to fishery resources.

California Department of Fish and Wildlife – Lake or Streambed Alteration Agreement

The California Department of Fish and Wildlife (CDFW) is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. CDFW's authority relative to water rights may include the requirement of an entity to notify CDFW of any proposed activity that may substantially modify a river, stream, or lake (Fish & G. Code, § 1600 et seq.). The notification requirement applies to any work undertaken in or near a river, stream, or lake that flows at least intermittently through a bed or channel. This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

If CDFW determines that the activity described in the notification has the potential of substantial adverse effects on fish and wildlife resources, the activity may not commence until a Lake or Streambed Alteration Agreement (LSAA) is completed that includes reasonable conditions necessary to protect those resources.

On May 10, 2013, the Applicant submitted notification to CDFW and it was determined that an LSAA was necessary. CDFW staff and the Applicant have worked together to complete a draft LSAA, included as Appendix A, that will be finalized when CEQA has been completed for the Project.

Sonoma County – County Grading Permit Ordinance

Sonoma County has an ordinance that requires development of a grading permit for projects that involve grading or related work associated with site clearing and soil disturbance. Entities must submit an application to the County. The ordinance is ministerial in which each application is evaluated to determine compliance with the standards contained in the ordinance.

On October 13, 2013, Sonoma County issued a grading permit for the Project.

Northern Sonoma County Air Pollution Control District – Dust Control

The Northern Sonoma County Air Pollution Control District (District) is one of 35 California air districts established to regulate the emissions of air pollution from "stationary sources" that could be detrimental to the health, safety, and welfare of the public. The District's legal mandate originates from the federal Clean Air Act and California Health and Safety Code, and oversight agencies are the federal Environmental Protection Agency and the California Air Resources Board. Entities must obtain written authorization prior to starting construction, modification, operation or use of any stationary or indirect source which may cause, potentially cause, reduce, control or eliminate the emission of air contaminants.

On April 15, 2014, the District provided written authorization of the Applicant's plan, included as Appendix B, to implement certain best management practices to prevent air quality impacts from construction related to the Project.

Regional Water Quality Control Board, North Coast Region

The Regional Water Quality Control Board (Regional Board) makes critical decisions regarding water quality standards, issuing permits (waste discharge requirements), determining compliance with those requirements, and taking enforcement actions.

On March 28, 2014, Regional Water Board staff indicated that no approvals are required from the Regional Water Board for construction of the Project.

II. ENVIRONMENTAL IMPACTS

The environmental issues marked below could be impacted by the Project and are discussed in detail in the following analysis.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Geology and Soils
☒ Greenhouse Gas Emissions	☒ Hazards and Hazardous Materials	☒ Hydrology and Water Quality
☐ Land Use and Planning	☐ Mineral Resources	☒ Noise
☐ Population and Housing	☐ Public Services	☐ Recreation
☒ Transportation and Traffic	☐ Utilities and Service Systems	☒ Mandatory Findings of Significance

1. AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The Project is located in the Coastal Mountain Range of Sonoma County. Primary views of the Project originate from a privately-owned unimproved access road off of King Ridge Road. Rolling hills and dense vegetation obscures project components, including the Project site, from the only public road in the area, King Ridge Road.

Two Scenic Highways are located in Sonoma County totaling approximately 40 miles: Highway 116 from Highway 1 to the Sebastopol city limit, and Highway 12 from Danielli Avenue east of Santa Rosa to London Way near Agua Caliente. The Sonoma County General Plan classifies scenic resources into three categories: Community Separators, Scenic Landscape Units, and Scenic Corridors (Sonoma County 2008). The project is located within rural hillsides of Sonoma County where there are very limited sources of light.

DISCUSSION

a) Have a substantial adverse effect on a scenic vista?

Scenic vistas in the Project area primarily include views of hills, oak trees, and mixed evergreen forest. Reservoirs are an existing visual element to the areas scenery. Construction of the well, reservoir, and infrastructure would not create an obtuse visual element or visibly standout from surrounding land uses nor would it result in physical changes to any designated scenic vistas. For these reasons, the Project would have no impact on a scenic vista.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The Project is not located within or near any scenic resources classified within the Sonoma County General Plan. Construction of the reservoir, well, and infrastructure would not require removal or demolition of any designated scenic resources. For these reasons, scenic resources would not be damaged with implementation of the Project, and no impact would occur.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Visual character of the surrounding Project area primarily includes views of oak trees, grasslands, and vineyards. The addition of the reservoir would add an existing visual element to the area's visual character and would not create an obtuse visual element or visibly standout from surrounding land uses. For these reasons, no impact would occur.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The Project would not involve any actions that would create a new source of nighttime light or daytime glare. No impact affecting day or nighttime views would occur.

2. AGRICULTURE AND FORESTRY RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project is designated as Resources and Rural Development under the Sonoma County General Plan Land Use Element which allows for crop production as a permitted use. There are no current plans to expand the existing vineyard, which is located on Unique Farmland. The reservoir is proposed to be located on Grazing Land as classified by the Department of Conservation's Farmland Mapping and Monitoring Program (Department of Conservation 2008a). Surrounding land uses include similar land uses including rural residences and open spaces.

DISCUSSION

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The proposed reservoir is located on undeveloped land that is not designated for agricultural use. Implementation of the project would not convert farmland to a non-agriculture use. No impact would occur.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

The project area is designated as Resources and Rural Development land use which allows for crop production. Activities associated with the project would comply with permitted uses under Resources and Rural Development land use (i.e. vineyard operations). The project is not under a Williamson Act contract and will not conflict with any existing Williamson Act contracts (Department of Conservation 2008b). Since implementation of the Project would not conflict with existing zoning or requirements of the Williamson Act. No impact would occur.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

According to the Sonoma County General Plan, the property is zoned as Timberland Production. Implementation of the Project will not result in altering the designated zoning of the property. The project components are authorized uses within parcels designated as Timberland Production. No impact would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

Please refer to discussion under question (c) above. The Project is located within property zoned for Timberland Production. Implementation of the Project will not result in altering the designated zoning of the property. The project components are authorized uses within parcels designated as Timberland Production. No impact would occur.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

The Project is for the construction of infrastructure that would facilitate continued production of agricultural crops and will not result in any conversion of farmland to non-agricultural use. No impact would occur.

3. AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make the following determinations.				
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project is located in the Northern Sonoma Air Pollution Control District (District) within the North Coast Air Basin, which is designated as nonattainment for State 24-hour and annual average PM10 (particulate matter ten microns or less in diameter) standards (Air Resources Control Board 2005). The nearest residence is located approximately one mile northwest of the project area.

Existing Air Quality Conditions

The California Air Resources Board (CARB) maintains several ambient air quality monitoring stations within the District that provide information on the average concentrations of criteria air pollutants in the region. The Cloverdale monitoring station is located in closest proximity to the proposed project area. The second closest monitoring station is located at the Healdsburg Municipal Airport. However, it should be noted that the monitoring stations are located in urban areas while the proposed project area is located in a rural area at an elevation more than one thousand feet above Cloverdale and Healdsburg. Table 5 summarizes ambient air quality monitoring data from this location and compares ambient air pollutant concentrations of O3 and PM10 to State ambient Air Quality Standards (SAAQS) and National Ambient Air Quality Standards (NAAQS).

Table 5. Ambient Air Quality Monitoring Data

Pollutant	2009	2010	2011
***Ozone (O3)**			
Maximum 1-hour concentration (ppm)	0.07	0.07	0.06
Number of days Standard exceeded			
SAAQS (1-hour) > 0.09 ppm	0	0	0
NAAQS (1-hour) > 0.12 ppm	0	0	0
****Particulate Matter (PM10)**			
Maximum 24-hour concentration (µg/m3)	26	33	42
Number of days Standard exceeded			
SAAQS (24-hour) > 50 µg/m3	0	0	0
NAAQS (24-hour) > 150 µg/m3	0	0	0

Notes:
*Data is from the Healdsburg Municipal Airport monitoring station.
**Data is from the Cloverdale monitoring station.
ppm = parts per million; µg/m3 = micrograms per cubic meter
Source: California Air Resources Board 2013c.

DISCUSSION

a) Conflict with or obstruct implementation of the applicable air quality plan?

The project would not involve any activities that generate permanent substantial air emissions. The initial construction of the well, reservoir, and associated infrastructure may require mechanized equipment however, such activities would be temporary and the equipment utilized for the construction is regulated by State and federal regulations. The power source for the well's pump will operate using diesel. The pump will only be operating during the diversion season and only operate long enough to divert 14 acre-feet of water each year. Long-term operations associated with Project will not generate substantial harmful air emissions. For these reasons, implementation of the Project would not conflict with or obstruct implementation of an applicable air quality plan. This impact would be less-than-significant.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Temporary impacts to air quality may occur during the construction of the Project through the grading and excavating necessary to create the reservoir and installation of the well and infrastructure. Standard best management practices (BMPs) will be applied for dust control and wind erosion in accordance with the plan that is included as Appendix B and was approved by the District on April 15, 2014. The plan includes several dust control and wind erosion control measures, specifically, preservation of existing vegetation, silt fences, water conservation practices, spill prevention and control, material delivery storage, and vehicle equipment cleaning. Implementation of the following permit condition will reduce impacts to air quality to less-than-significant:

To reduce impacts to air quality from the construction of the Project, the following term, substantially as follows shall be included in any permit issued pursuant to Application 32139:

During construction, right holder shall comply with the Dust Control and Mitigation Plan approved on April 15, 2014 by the Northern Sonoma County Air Pollution Control District.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Please refer to discussion under question (a) above. Implementation of the Project would not generate substantial amount of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. This impact would not cause a cumulatively considerable net increase of any criteria pollutants. This impact would be less that significant.

d) Expose sensitive receptors to substantial pollutant concentrations?

Please refer to discussion under question (a) above. The nearest sensitive receptor would be other residences in the area. The closest residence to the Project is located over one mile northwest of the Project. The Project would not generate substantial air pollutants that would be considered obtrusive to sensitive receptors (e.g., residences). This impact would be less-than-significant.

e) Create objectionable odors affecting a substantial number of people?

The Project would not generate any air pollutants that would be considered obtrusive (e.g., odors) to a substantial number of people. No impact would occur.

4. BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

Searches of the California Natural Diversity Database (CNDDB) and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants utilizing DFW's Biogeographic Information and Observation System were conducted to identify sensitive biological resources that have been documented in the nine U.S. Geological Survey 7.5-minute quadrangles containing and surrounding the project area. The nine quadrangles included in the database searches are Ft. Ross, Duncans Mills, Arched Rock, Plantation, Annapolis, Cazadero, Warm Springs Dam, and Tombs Creek. In addition to the database searches, information was obtained through aerial photograph interpretation and photos and records provided by the Applicant.

A Biological Review was completed by Kjeldsen Biological Consulting for the Project in May and June 2013 to determine whether any special-status plant species, special-status animal species, their breeding and aestivation habitat, or special-status habitats were present at the project site. The Biological Review's findings included:

- The project site has been used for historic agricultural grazing and timber harvest. The past use is such that native flora and plant communities or associations have been altered by the introduction of non-native naturalized species in the grasslands;

- The offset well is adjacent to an unnamed blue line creek that is a tributary of Marshall Creek thence the South Fork Gualala River. Habitat at the well consists of Semi-natural Shrubland Stand;

- Foothill yellow-legged frog (*Rana boylii*) was observed approximately 500 feet below the reservoir;

- The plant alliance or communities on the reservoir site consist of ruderal grasslands and Cismontane Woodland, and;

- No special-status animal or plants were observed at either at the reservoir or the well sites;

The site for the offset well is within semi-natural shrubland that is dominated by non-native Himalayan blackberry (*Rubus armenicaus*). The project site for the reservoir consists of two plant communities: grassland semi-natural stand with an herbaceous layer and Cismontane woodland/forest alliance. Annual grassland, oak woodland, and mixed evergreen forest characterize land adjacent to the project area.

Plant Communities

Grassland Semi-natural Stands with Herbaceous Layer – This plant community consists of patches of three sub-plant communities: wild oats grassland, annual brome grassland, and perennial rye grassland. All three sub-plant communities forms a dense to spare cover of grasses. It is often associated with numerous species of flowering, native annual forbs especially in years of favorable rainfall. With a few exceptions, the plants are dead through the summer-fall dry season, persisting as seeds. The dominant upland species consist of perennial rye grass (*Lolium perenne*), wild geranium (*Geranium dissectum*), rip-gut brome (*Bromus diandrus*), fiddle dock (*Rumex pulcher*), and redstem filaree (*Erodium cicutarium*) (Photo 1).

Cismontane Woodland/Forest Alliance - This habitat type is dominated by broadleaved trees varying from nearly closed forests on moist and/or fine-textured soils. Valley and Foothill Grassland species predominate in the openings between the trees; other herbaceous species characterize the shaded areas. The dominate trees include winter-deciduous and summer-deciduous species, but with fewer trees than Mixed Evergreen Forest. Typical species at the site include valley oak (*Quercus lobata*), coast live oak (*Quercus agrifolia*), and blue oak (*Quercus kellegoii*) (Photo 2).

Photo 1: Grassland Semi-natural Stands with Herbaceous Layer; facing north above proposed reservoir.

Photo 2: Cismontane Woodland/Forest Alliance; facing west from the proposed reservoir.

Special-Status Plant Species

Sonoma County is rich in habitat diversity and a number of rare and endemic plant species have been documented within the nine quadrangles containing and surrounding the project area. All of the special-status plant species documented within the quadrangles were evaluated for their potential to occur in or adjacent to the project area.

The Biological Review conducted a search of the CNDDB and CNPS databases and identified nine plant species (considered rare, threatened, or endangered in California and elsewhere) as having the potential to occur in the project area and vicinity based on the habitats present within the project area. These species are Blasdale's bent grass (*Agrostis blasdalei*), Cedars manzanita (*Arctostaphlos bakeri* ssp. *sublaevis*), Cedars fairylantern (*Calochortus raichei*), swamp hareball (*Campanula californica*), bluff wallflower (*Erysimum concinnum*), wooly-headed gilia (*Gilia capitata* spp. *tomentosa*), pygmy cypress (*Hesperocyparis pygmaea*), purple-stemmed checkerbloom (*Sidalcea malvifora* ssp. *purpurea*), and long-beard lichen (*Usnea longissima*). Of these plant species, none are currently listed as state or federally endangered or threatened.

Numerous other special-status plant species have been documented in the nine quadrangles containing and surrounding the project area, but these species are restricted to habitats that do not occur on the project site such as vernal pool, saltwater marsh, chaparral, serpentine soils, coastal prairie, and coastal scrub communities and are therefore not addressed further in this document. A complete list of these species is within the Biological Review (See Appendix C: *Biological Review*).

Special-Status Wildlife Species

The Biological Review conducted a search of the CNDDB database and identified five wildlife species (considered rare, threatened, or endangered in California and elsewhere) as having the potential to occur in the project area and vicinity based on the habitats present within the project area. These species are the pallid bat (*Antrozous pallidus*), Sonoma tree vole (*Arborims pomo*), Sonoma artic skipper (*Carterocephalus palaemon magnus*), Yuma myotis (*Myotis yumanensis*), and foothill yellow-legged frog (*Rana boylii*). Of these wildlife species, none are currently listed as state or federally endangered or threatened.

Although not all raptors are considered special-status species, they are a sensitive biological resource protected under Fish and Game Code section 3503.5, which prohibits take or destruction of raptors, including their nests and eggs. Common raptor species, such as red-tailed hawk and American kestrel, may forage in the project area and could nest in trees in and adjacent to the project.

Special-Status Fish Species

The well (POD 1) is on Unnamed Stream 1 tributary to Wild Cattle Canyon thence Marshall Creek thence the South Fork Gualala River. The reservoir (POD 2) is located on Unnamed Stream 2 tributary to Unnamed Stream 1. The South Fork Gualala River and Marshall Creek have known occurrences of fish. Two special-status fish species have the potential to occur within the project vicinity: Northern California Coast Steelhead (*Oncorhynchus mykiss*) distinct population segment, listed under the federal Endangered Species Act as a threatened species and Gualala roach (*Lavinia symmetricus parvipinnis*), listed as a California Species of Special Concern.

DISCUSSION

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?

Special-Status Plant Species

The project site has been historically utilized for agricultural grazing land and for timber harvest which has altered the native flora and plant communities towards introduced non-native naturalized plant species. The likelihood of federally or state listed plant species occurring at the site is low because of the low quality of habitat within the project area. The absence of vernal pools, distance from the coast, lack of wetlands, and historic use reasonably precludes the presence of any special-status species for the region. Furthermore, the Biological Review determined that there are no special-status plant species located within the project site. Impacts to special-status plant species is considered to be less-than-significant.

Special-Status Wildlife Species

Yuma myotis (*Myotis yumanensis*) – The Yuma myotis is found throughout western North America. The species occasionally roosts in mines or caves, but these bats are most often found in building or bridges. Individual males also sometimes roost in abandoned cliff swallow nests, but tree cavities were probably the original sites for most nursery roosts. Although Yuma myotis feed predominantly over water, they eat a variety of insects that includes moths, froghoppers, leafhoppers, June beetles, ground beetles, midges, mosquitos, muscid flies, caddisflies, and crane flies. These bats typically forage over water in forested areas. The Biological Review determined that suitable roosting habitat for this species is lacking on the project site. Therefore, there would be no impact to Yuma myotis.

Pallid bat (*Antrozous pallidus*) – The Pallid bat is a locally common species of low elevations in California. It occurs throughout California except for the high Sierra Nevada from Shasta to Kern Counties, and the northwestern corner of the state from Del Norte and western Siskiyou Counties to northern Mendocino County. A wide variety of habitats are occupied, including grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. The species is most common in open, dry habitats with rocky areas for roosting and is a yearlong resident in most of the range. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. The Biological Review determined that suitable roosting habitat for this species is lacking on the project site. Therefore, there would be no impact to the Pallid bat.

Sonoma tree vole (*Arborimus pomo*) – The species is distributed along the North Coast from Sonoma County north to the Oregon border, and is more or less restricted to the fog belt. The species are reported to be rare to uncommon throughout its range, but the difficulty of locating nests and capturing individuals has made determining abundance difficult to assess. The species occurs in old-growth and other forests, mainly Douglas-fir, redwood, and montane hardwood-conifer habitats, and specializes on needles of Douglas-fir and grand fir. Needles and twigs are gathered primarily during the night, and may be consumed where found, or brought to the nest. Nests of Douglas-fir needles are constructed in trees, preferably tall trees. The mixed evergreen forest immediately adjacent to the project area contains Douglas fir trees, a preferred habitat element for Sonoma tree voles, and other conifer trees that provide suitable habitat for

Sonoma tree voles. The Biological Review determined that suitable habitat for this species is lacking on the project site and within the immediate surrounding environment. Therefore, there would be no impact on Sonoma tree vole.

Sonoma Artic Skipper (*Carterocephalus palaemon magnus*) – The Sonoma Arctic Skipper occurs across much of North American with its farthest southern range in northern California occurring within two known populations: Guerneville (which is thought to be extinct) and another near Salt Point. Adults are found flying from early May to early August to breed with eggs developing to mature larvae by Fall. The foodplant associated with this species is currently suggested to be purple reed grass (*Calamagrostis purpurasecens*) along with other native grasses in California. The Biological Review determined that suitable habitat for this species is lacking on the project site and within the immediate surrounding environment. Therefore, there would be no impact on Sonoma Arctic Skipper.

Foothill yellow-legged frog (*Rana boylii*) – The foothill yellow-legged frog occurs in the Coast Ranges from the Oregon border south to the Transverse Mountains in Los Angeles County, in most of northern California west of the Cascade crest, and along the western flank of the Sierra south to Kern County. Its elevation range extends from near sea level to 1940 m (6370 ft) in the Sierra. The foothill yellow-legged frog is found in or near rocky streams in a variety of habitats, including valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadows. Adults eat both aquatic and terrestrial invertebrates and often bask on exposed rock surfaces near streams. When disturbed, they dive into the water and take refuge under submerged rocks or sediments. During periods of inactivity, especially during cold weather, individuals seek cover under rocks in the streams or on shore within a few meters of water. The Biological Review documented foothill yellow-legged frog below the proposed reservoir, but determined that the site of the proposed reservoir does not contain suitable habitat for the species. The Biological Review further stated that the reservoir could potentially impact foothill yellow-legged frog during construction of the project.

For the protection of foothill yellow-legged frog, the following term, substantially as follows, shall be included in any water right issued pursuant to A032139:

> *A biologist, whose qualifications are acceptable to the Deputy Director for Water Rights, shall be present during any construction work within the stream channel to ensure that no take of foothill yellow-legged frog (Rana boylii) occurs. If foothill yellow-legged frogs are encountered during construction, right holder shall cease construction and ground disturbing activities within 250 feet of the location where foothill yellow-legged frogs are present and shall contact the California Department of Fish and Wildlife. Prior to restarting construction activities, right holder shall submit to the Deputy Director for Water Rights evidence of approval by the California Department of Fish and Wildlife to continue construction.*

Foothill yellow-legged frog also may be impacted by non-native species. Reservoirs typically provide suitable habitat for a number of non-native aquatic species, including predator species such as bullfrogs (*Rana catesbeiana*) which have become widely established within artificial ponds and other open-water storage facilities. Bullfrogs are an invasive species that depredate and out-compete the foothill yellow-legged frog and have been partially responsible for the population decline of the species. Bullfrogs have not been documented at the project site, but the possibility exists that bullfrogs may establish in the reservoir once constructed.

Non-native bullfrogs may spread over land or through reservoir spills. Bullfrogs and other non-native aquatic species (e.g., warm water fish) have become thoroughly established in central California and control or eradication of these species is difficult if not impossible. However, an increase in the spread of non-native species would be considered a significant impact because bullfrogs are known predators of other amphibian species which may become established at the project site once the reservoir is constructed. As discussed in the Introduction, the State Water Board has adopted a Policy for Maintaining Instream Flows in Northern California Coastal Streams (Policy). The Policy contains requirements to minimize the impacts of onstream dams. One of these requirements is development of a mitigation plan for non-native species eradication. Pursuant to the Policy, this requirement will avoid creating habitat for non-native species. Appendix D of the Policy requires the non-native species eradication plan to be developed by a qualified individual, include specific information, and be subject to review and approval by the State Water Board in consultation with the California Department of Fish and Wildlife.

To capture the components above and to reduce this impact to less-than-significant, the Applicant will be required to develop a bullfrog mitigation plan that is consistent with Appendix D of the Policy, and includes the following information:

a. The method by which bullfrogs present or potentially present will be identified.

b. A description of the approach that will be used to eradicate bullfrogs from the reservoir, if present, including the method and the frequency of applying the method.

c. Description of the criteria that will be used to evaluate the effectiveness and success of the eradication method.

d. Description of the program that will be used for monitoring the effectiveness and success of the eradication method.

e. Description of how the approach will be supplemented or modified if the monitoring program indicates that the current eradication plan is not effective or successful.

f. Time scheduled for periodic inspection of the reservoir and eradication of bullfrogs from the reservoir, if present.

For the protection of foothill yellow-legged frog, the following term, substantially as follows, shall be included in any water right issued pursuant to A032139:

> *No water shall be diverted under this right unless right holder is operating in accordance with a mitigation plan satisfactory to the Deputy Director for Water Rights. The mitigation plan shall address eradication of non-native species. Right holder shall submit a report on mitigation plan activities in accordance with the time schedule contained in the mitigation plan, and whenever requested by the Division of Water Rights. The Deputy Director for Water Rights may require modification of the mitigation plan upon a determination that the plan is ineffective or unsuccessful, or provide relief from this term upon a determination that the mitigation plan is no longer required.*

Raptors – Suitable nesting habitat may be present for raptors on and adjacent to the project area within the oak woodland and mixed evergreen forest. Nest disturbance has the potential to cause nest abandonment or the loss of eggs or chicks due to reduced parental care. Raptors

that may occur in the project vicinity are red-tailed hawk and American kestrel. The Biological Review observed no raptors nests in any tree at the project site, and determined that it is unlikely that raptors will utilize the trees for nesting because of the trees proximity to disturbances from adjacent agricultural activities. However, since tree removal will occur within the project area, implementation of the following permit conditions would reduce impacts to raptors and bird species to a less-than-significant level.

To protect special-status birds, the following term, substantially as follows, shall be included in any permit issued pursuant to Application 32139:

> *If construction and/or tree removal activities are to occur between March 15 to August 15, a biologist, whose qualifications are acceptable to the Deputy Director for Water Rights, shall conduct a pre-construction survey for the purpose of identifying nesting bird species prior to construction and/or tree removal. The pre-construction survey shall include all potential nesting habitat within 500 feet of the proposed tree removal activities. The survey shall be conducted no more than 14 days prior to the beginning of tree removal activities. If an active raptor or migratory bird nest is found during the pre-construction survey, right holder shall notify the Deputy Director for Water Rights. If an active raptor nest is found during the pre-construction survey, a 500-foot no-disturbance buffer shall be established and maintained around the nest until all young have fledged. If an active nest of any other migratory or non-migratory bird is found, a 250-foot buffer shall be established around the nest until all young have fledged. Right holder shall report to the Deputy Director for Water Rights the results of the survey prior to any construction in the place of use.*

Trees provide habitat for arboreal species (i.e raptors, bats, voles). Nine trees will be removed at the reservoir site which consists of bays, firs, and oaks. The trees to be removed are not classified as special-status species, however oak trees are considered to be a significant biological resource. As part of the LSAA for the project per CDFW, 11 five-gallon oak trees will be planted after construction of the Project is complete.

To protect habitat for arboreal species, the following term, substantially as follows, shall be included in any permit issued pursuant to Application 32139:

> *Right holder shall plant 11 oak trees. The tree replacement plantings shall be located within or adjacent to the existing vegetation. Right holder shall provide a map showing the location of each replacement planting within one year of the date of permit issuance and provide updates to the map with subsequent monitoring reports if changes occur.*
>
> *Replacement tree plantings will consist of propagules derived from locally collected stock (native of Sonoma County) having a similar genetic origin to indigenous species on site. Right holder shall provide a written statement within one year of permit issuance disclosing the origin of each of the replacement plantings and updates to the written statement with subsequent monitoring reports if failed plantings are replaced or relocated. Right holder shall provide photographic evidence to document the tree replacement plantings within one year of the date of permit issuance and update photographs with subsequent reports if failed plantings are replaced or relocated.*
>
> *Any diversion of water pursuant to this permit is unauthorized if survival of any of the replacement tree species falls below 75%. Right holder shall maintain replacement plantings such that survival rate of each species is not less than the identified*

thresholds. Survival rate shall be documented and submitted by right holder annually. Annual monitoring reports shall be prepared by a biologist or certified arborist whose qualifications are acceptable to the Deputy Director for Water Rights. The initial monitoring report shall be submitted to the Deputy Director for Water Rights within one year of the date of permit issuance. The initial monitoring report shall include documentation of:

- *planting locations (map)*
- *species of each planting*
- *size of each tree at planting (height and diameter at breast height if applicable)*
- *statement identifying the origin of each replacement tree*
- *photographic evidence documenting planted replacement trees.*

Subsequent annual reports shall be submitted annually to the Deputy Director for Water Rights and shall include documentation of:

- *size of each tree (height and diameter at breast height if applicable)*
- *age of each tree*
- *health status of each tree*
- *photographic evidence documenting progress of replacement trees*
- *locations (updated map), initial size measurement (height and diameter and breast height),*
- *photographic evidence and statement of origin for new plantings, if necessary to replace failed plantings.*

These reports shall be filed annually for a minimum of five years until at least 75% of each species has survived five years. At this time a final report shall be filed that provides written and photographic documentation of the following:

- *location of each tree*
- *size of each tree (height and diameter at breast height)*
- *age of each tree.*

Right holder shall refrain from any activities which may impact the replacement plantings including but not limited to development and timber harvesting in the replanting area.

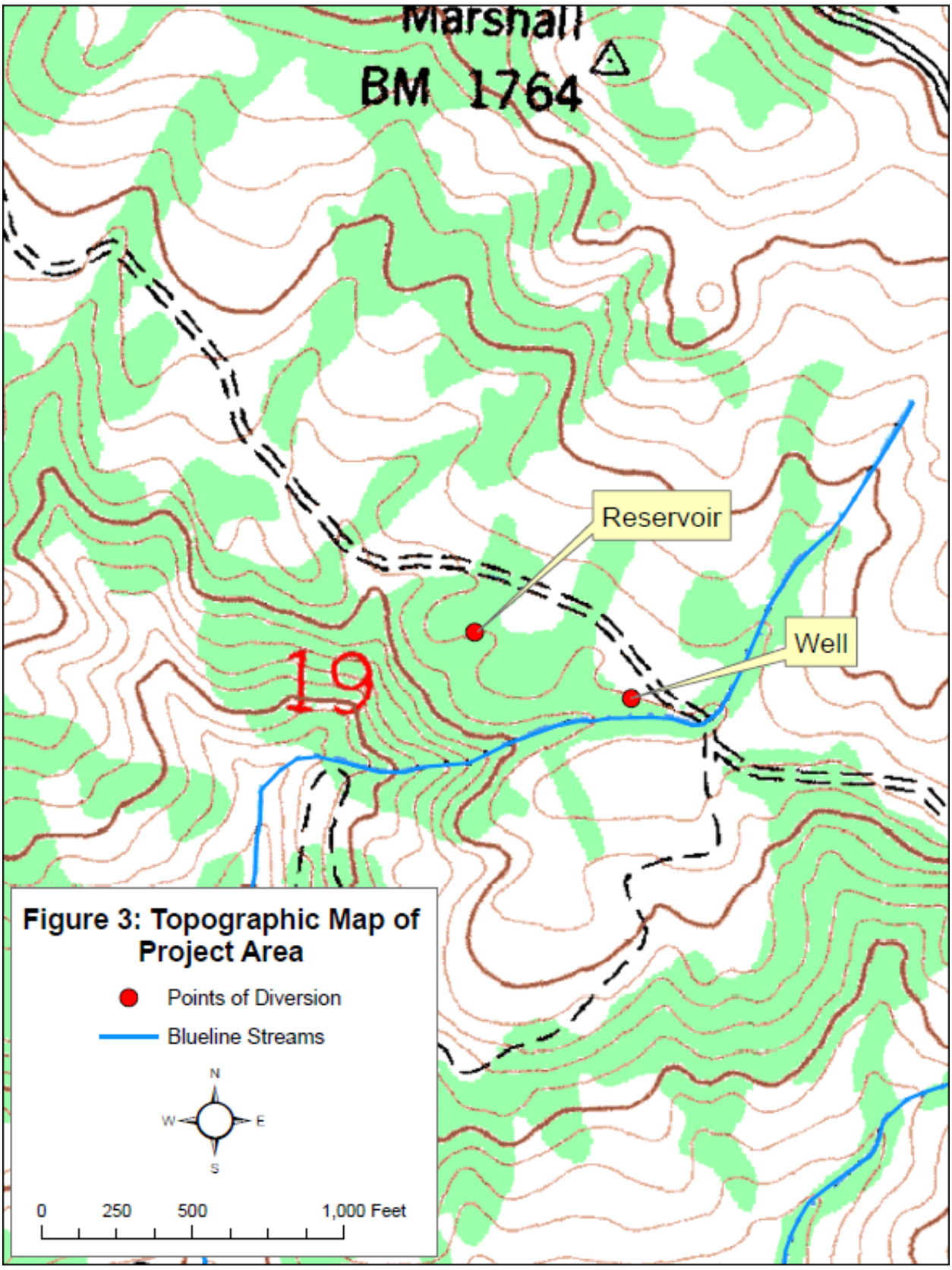
Special-Status Fish Species

Steelhead (*Oncorhynchus mykiss*) – Steelhead are the anadromous form of rainbow Trout, a salmonid species native to western North America and the Pacific Coast of Asia. They enter the Gualala River to spawn starting in late December through April. After the young emerge they spend their first 1 to 3 years of life in the watershed before smolting and migrating to the ocean. After spending between one to four seasons maturing in the ocean, Steelhead return to their native fresh water stream to spawn. Unlike Pacific Salmon, Steelhead do not necessarily die after spawning and are able to spawn more than once. Steelhead need cool clean water and adequate flow for migration and summer rearing, clean gravels and cobble for spawning and winter refugia, deep pools with large wood for shelter, and healthy riparian vegetation for shade and nutrients. Steelhead are more adaptable to warmer water temperatures and are found in most tributaries throughout the watershed.

Gualala Roach (*Lavinia symmetricus parvipinnis*) – The Gualala roach is a sub-species of the California roach that is endemic to the Gualala River and its tributaries. This species prefers slower flowing water and are capable of withstanding water temperatures of 95^{O} Fahrenheit. Most fish of this species reach sexual maturity at age 2-3 and rarely live beyond three years total. Spawning occurs in March through early July, and timing is temperature dependent. Gualala roach breed in gravel beds or riffles where groups of females lay eggs on and into the substrate. The eggs hatch in 2-3 days, but the larvae remain in the protection of the gravel substrate before emerging to swim.

Steelhead are anadromous fish which migrate between freshwater and saltwater environments. Migration of anadromous fish can be limited within freshwater environments by natural and manmade barriers (i.e. stream gradients and perched culverts). The Upper Limit of Anadromy (ULA) represents the upstream end of the range of anadromous fish, whether current or historical, where anadromous fish cannot gain access to due to a barrier. The ULA may also represent a barrier to movement for freshwater fish. The Policy presumes that a POD is located within anadromy, unless information is available to determine the ULA. One method to determine the ULA is by calculation of the slope of the streams per Policy section A.1.4 (2). This section states that the ULA can be defined by a stream gradient of a "continuous longitudinal slope of 12 percent, or greater". According to USGS Topographic map, shortly below each POD, both unnamed streams steeply drop in elevation creating a slope that is greater than 12% (Figure 3). The ULA is the lowest point of that gradient, which is downstream of both PODs therefore, the Project will not create a physical barrier to fish movement.

Adequate water quantity are essential for fish species to live, spawn, and move within the Gualala River watershed. Although the Project does not present a physical barrier to fish movement, it may have the potential to reduce the availability of water for fish downstream within the watershed. The region's climate is characteristic of wet winters where the majority of annual precipitation is received during the winter months. Diversions occurring during the winter months when flows within streams are seasonally high would therefore be less likely to impact fish. Further evaluation regarding the amount of water diverted, season of diversion, and other measures to reduce impacts from the Project on the availability of water for fish are discussed within Section 9: Hydrology and Water Quality.


Marshall
BM 1764
Reservoir
Well
19
Figure 3: Topographic Map of Project Area
Points of Diversion
Blueline Streams
N
W
E
S
0
250
500
1,000 Feet

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

There are no local or regional plans, policies, or regulations covering the project area that govern sensitive natural communities in or adjacent to the project area. The Biological Review did not identify or document any sensitive natural communities within the project area. The project area has been historical utilized for grazing and timber harvest practices which has altered the environment to cater towards non-native plant species. The well will be placed adjacent to an ephemeral stream that is bordered by a small strip of shrubby vegetation which is heavily dominated by non-native blackberry bushes (Photos 3, 4). Construction of the offset well will not permanently remove any riparian vegetation from the unnamed stream. Diversion of water from the unnamed stream may impact riparian vegetation through the reduction in streamflow during the diversion season, however, with implementation of the above water right term, diversion will occur when water is more readily available during winter and spring months. Thus, implementing water right conditions as discussed above would reduce this potential impact to less-than-significant.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No seasonal wetlands or vernal pool habitats were documented in the Biological Review. Construction of the well will be located above the high water mark of Unnamed Stream 1 and the reservoir will be constructed above the defined channel of Unnamed Stream 2. The reservoir site was chosen in order to avoid wetlands and vernal pools. To verify that the Project will not impact wetlands and vernal pools, the Applicant will submit a request for jurisdictional determination to the U.S. Army Corps of Engineers for Section 404 compliance. Impacts to wetland and vernal pools would be considered less-than-significant.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Wildlife corridors are features that provide connections between two or more areas of habitat that would otherwise be isolated and unusable. Drainages, creeks, or riparian areas are often used by wildlife as movement corridors as these features can provide cover and access across a landscape. The well will be adjacent to the Unnamed Stream 1 and will not inhibit movement of species utilizing the stream. The proposed reservoir's footprint is about half an acre which would not restrict the movement of terrestrial and plant species within the project area.

Furthermore, as discussed in question (a) above, the upper limit of anadromy for both unnamed streams are below each POD; the project will not directly impede migratory fish. This impact is considered less-than-significant with implementation of the water right terms listed above.

Photo 3: Downstream view of unnamed stream at location of the well; facing south.

Photo 4: Upstream view of unnamed stream at location of POD 1; facing north.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The project will not conflict with any local policies or ordinances protection biological resources. The property is zoned for timber production and allows for harvesting and removing trees.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project area is not within an area subject to an adopted habitat conservation plan, natural community conservation plan, or other approved, local, regional, or state habitat conservation plan. Therefore, the project would not conflict with any such plans and no impact would occur.

5. CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

ENVIRONMENTAL SETTING

A Cultural Resources Study (CRS) was completed for the project by Tom Origer & Associates, dated June 27, 2013. The CRS included archival research at the Northwest Information Center, Sonoma State University, examination of the library and files of Tome Origer & Associates, field investigation of the project location, and contact with the Native American community. The study area comprises approximately two acres of land for the project components. The CRS determined that there are no prehistoric or historic-era archaeological site founds within the study area (See Appendix D: *Cultural Resources Study*).

DISCUSSION

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

The project site does not contain any known historical resources as determined by the CRS. Thus, there will be no impact to any historical resource.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

There is the possibility that unanticipated discovery of archaeological resources could occur. For the protection of cultural resources, the following permit terms shall be included in any permit issued pursuant to A032139:

> *Should any buried archeological materials be uncovered during project activities, such activities shall cease within 100 feet of the find. Prehistoric archeological indicators include: obsidian and chert flakes and chipped stone tools; bedrock outcrops and boulders with mortar cups; ground stone implements (grinding slabs, mortars and pestles) and locally darkened midden soils containing some of the previously listed items plus fragments of bone and fire affected stones. Historic period site indicators generally include: fragments of glass, ceramic and metal objects; milled and split lumber; and structure and feature remains such as building foundations, privy pits, wells and dumps; and old trails. The Deputy Director for Water Rights shall be notified of the discovery and*

a professional archeologist shall be retained by the right holder to evaluate the find and recommend appropriate mitigation measures. Proposed mitigation measures shall be submitted to the Deputy Director for Water Rights for approval. Project-related activities shall not resume within 100 feet of the find until all approved mitigation measures have been completed to the satisfaction of the Deputy Director for Water Rights.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The project area is located within Eocene-age (56 to 34 million years ago) sandstone deposits. To be considered a fossil, an object must be more than 11,000 years old. There is the possibility that unanticipated discovery of paleontological resources could occur during construction of project components. For the protection of paleontological resources, the following permit terms shall be included in any permit issued pursuant to A032139:

If vertebrate fossils are discovered during project activities, all work shall cease within 100 feet of the find until a qualified professional paleontologist as defined by the Society of Vertebrate Paleontology's Conformable Impact Mitigation Guidelines Committee (2011) can assess the nature and importance of the find and recommend appropriate treatment. The Division of Water Rights will also be notified of the discovery and the qualified professional paleontologist's opinion within 48 hours of the initial finding. Treatment may include preparation and recovery of fossil materials, so that they can be housed in an appropriate museum or university collection, and also may include preparation of a report for publication describing the finds. Project activities shall not resume until after the qualified professional paleontologist has given clearance and evidence of such clearance has been submitted to the Division of Water Rights.

d) Disturb any Human Remains?

The record search and literature review completed by the CRS failed to identify any burial sites in the project site. The potential exists, however, for previously unknown human remains to be discovered during construction. For the protection of human remains, the following permit terms shall be included in any permit issued pursuant to A032139:

If human remains are encountered, then the right holder shall comply with Section 15064.5(e) of the California Environmental Quality Act Guidelines and the Health and Safety Code Section 7050.5. All project-related ground disturbances within 100-feet of the find shall be halted until the Sonoma County Coroner has been notified. If the Coroner determines that the remains are Native American, the Coroner will notify the Native American Heritage Commission to identify the most-likely descendants of the deceased Native Americans. Project-related ground disturbance in the vicinity of the find shall not resume until the process detailed under Section 15064.5 (e) has been completed and evidence of completion has been submitted to the Deputy Director of Water Rights.

6. GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

A geotechnical report was completed for the project. The report summarized the project site is located in the Coast Ranges Geomorphic Province which is characterized by northwest trending topographic and geologic features, and includes many separate ranges, coalescing mountain masses and several major structural valleys. The province is bounded on the east side by the Great Valley and on the west side by the Pacific Ocean. The structure of the northern Coast Ranges region is extremely complex due to continuous tectonic deformation imposed over a long period of time. The initial tectonic episode in the northern Coast Ranges was a result of plate convergence which I believed to have begun during the late Jurassic time. The geotechnical report determined that the project site is underlain by bedrock units from the Franciscan Assemblage, specifically consisting of sheared shale and sandstone. Soils within the area are of the Laughlin-Yorkville complex. This complex is typically 70% Laughlin and 30% Yorkville which are moderate to well-draining loams with sandy clay loam or clay loam subsoils. A grading permit has been issued by the Sonoma County Permit and Resources Management Department for construction of the reservoir and well.

DISCUSSION

a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)

No known active fault passes through the project site. The site is not located in the State of California Earthquake Fault Studies Zone. The geotechnical report determined that the three closest known potentially active faults are the San Andreas 4.0 miles southwest, the Maacama (south) 20.3 miles northeast, and the Maccama (Central) 20.7 northeast. The project is not located in an Alquist-Priolo fault-rupture hazard zone. The project is a water right project focused on the use of water by constructing a reservoir, well, and associated infrastructure. Implementation of the Project would not result in construction of housing or other habitable structures and would not involve any actions that would expose people or structures to substantial adverse effects from a rupture of a known earthquake fault. Therefore, the Project would not expose people or structures to adverse effects of a rupture. This potential impact is considered to be less-than-significant.

ii. Strong seismic ground shaking?

Please refer to discussion under question (a)(i) above. The Project would not have the ability to expose people or structures to adverse effects of strong seismic ground shaking. No impact would occur.

iii. Seismic-related ground failure, including liquefaction?

Please refer to discussion under question (a)(i) above. As shown in the Sonoma County Liquefaction Susceptibility Map, the project area is designated as very low for liquefaction susceptibility (Sonoma County 2011a). The Project would not have the ability to expose people or structures to adverse effects from seismic related ground shaking or failure. No impact would occur.

iv. Landslides?

As shown in the Sonoma County Slide Distribution Map, the project is located in an area of "many landslides" however, the project is not located near a fault zone (Sonoma County 2011b). Earthquake activity could occur in the project vicinity which could perpetuate a landslide or liquefaction. However, implementation of the Project would not result in construction of housing or other habitable structures. Furthermore, water diversion would occur at an existing facility. The planting of the additional vineyard would most likely reduce the likelihood of landslides because of the plant's roots which can stabilize soils. Therefore, the Project would not have the ability to expose people or structures to adverse effects of a landslide or from ground failure including liquefaction. This potential impact is considered to be less-than-significant.

b. Result in substantial soil erosion or the loss of topsoil?

The Project would involve agricultural activities, which include the maintenance of soil productivity. Activities associated with the Project would not result in substantial soil erosion or the loss of topsoil. No impact would occur.

c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Activities associated with the Project would not have the ability to expose people or structures to adverse effects from unstable soils. No impact would occur.

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property?

The reservoir is to be located mostly on soils designated as Hugo very gravelly loam, 30 to 50 percent slopes (HkF), and a small upper portion located on Yorkville-Laughlin complex (YvF), 30 to 50 percent slopes. Expansive soils are characterized as soil that expands when exposed to water and shrinks when it dries out. Expansive soils are typically characterized as having large amounts of clay. Hkf consists mainly of coarse loam which contains minimal clay and is not considered an expansive soil. YvF consists mostly of sandy loam, but does contain a moderate amount of clay however, YvF is not considered an expansive soil. Since the project area contains soils with low to moderate quantities of clay, these soils have a low potential for exhibiting expansive characteristics. Therefore, implementation of the Project would not have the potential to affect unstable soils or expansive soils which could create risks to life or property. This potential impact is considered to be less-than-significant.

e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

The Project does not include any septic tanks or alternative wastewater disposal systems. Therefore, the Project would result in no impacts related to soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems. No impact would occur.

7. GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

Constituent gases of the Earth's atmosphere called atmospheric greenhouse gases (GHGs) play a critical role in the Earth's radiation budget by trapping infrared radiation emitted from the Earth's surface, which would have otherwise escaped to space. Prominent GHGs contributing to this process include carbon dioxide (CO2), methane (CH4), ozone, water vapor, nitrous oxide (N2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. Anthropogenic emissions of these GHGs in excess of natural ambient concentrations are responsible for the enhancement of the greenhouse effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Global warming–inducing emissions of these gases are attributable to human activities associated with industrial/manufacturing, utilities, transportation, residential, and agricultural sectors (CEC 2006a).

Global warming is a global problem, and GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Worldwide, California is the 12th–16th largest emitter of CO2, and is responsible for approximately 2% of the world's CO2 emissions (CEC 2006a, 2006b). In 2004, California produced 492 million gross metric tons of carbon dioxide-equivalent (CEC 2006a).

In September 2006, California Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions, and is the first of its kind worldwide. AB 32 applies to major stationary sources of emissions only, but acknowledges the urgency of this potential threat to the environment.

DISCUSSION

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The Project would not involve any activities that generate substantial GHG emissions. All equipment used for water conveyance would already be permitted through the Northern Sonoma County Air Pollution Control District (NSAPCD) stationary source permitting process. The permitting process would ensure that any required GHG emission thresholds and controls

would be in place and monitored throughout the life of the conveyance facilities. In addition, any new structures or facilities that generate GHG emissions would be required to comply with all regulations of the NSAPCD including those applicable to GHG emissions. Construction of the reservoir, well, and infrastructure would be completed within a short amount of time and therefore have minimal construction-related GHG emissions. Operation of the Project would likely not generate substantial harmful GHG emissions beyond existing conditions. For these reasons, implementation of the Project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment. This impact would be less-than-significant.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The Project would not generate any long-term sources of substantial GHG beyond existing conditions and any additional facilities would be permitted and monitored by the NSAPCD to ensure compliance. As such, the Project would not conflict with the successful implementation of AB32, the AB32 Scoping Plan, and Executive Order S-14-08. Similarly, the Project would not conflict with any other applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Because the project would not conflict with any applicable plan, policy or regulation for GHG reduction or managing global climate change, this impact would be less-than-significant.

8. HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

According to the California Department of Toxic Substances Control Envirostor database and U.S. Environmental Protection Agency EnviroMapper database, the project area is not identified as a hazardous materials site.

DISCUSSION

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Implementation of the Project does not involve any actions that would involve routine transport, use, or disposal of hazardous materials. Activities associated with construction of the reservoir, well, and infrastructure will not involve an extensive amount of construction equipment or workers. However, activities associated with vineyard operations could involve the use and

storage of hazardous materials (e.g., fertilizers, insecticides). In addition, use of hazardous materials for vineyard operations would be required to comply with Sonoma County Agricultural Commissioner's Office requirements. Compliance with the usage and safe handling requirements identified by the manufacturer along with compliance with federal, state, and local regulations would limit the potential for an accident condition to occur that involves the release of hazardous materials into the environment. For these reasons, implementation of the Project would not create a significant hazard to the public related to hazardous materials. This potential impact is considered to be less-than-significant.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

Please refer to discussion under question (a) above. Implementation of the Project would not create a significant hazard to the public involving the release of hazardous materials. No impact would occur.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Please refer to discussion under question (a) above. The closest school to the project area (i.e., Montgomery Elementary School) is located 10 miles to the southeast. Implementation of the Project would not create a hazard to a school. No impact would occur.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Please refer to discussion under question (a) above. The project area is not included on any list of hazardous materials sites. No impact would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

The closest airport to the project (i.e., Sonoma County Airport) is located approximately 23.9 miles to the southeast. Implementation of the Project would not create a hazard to airport operations. No impact would occur.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

Please refer to discussion under question (e) above. Implementation of the Project would not create a hazard to airport operations. No impact would occur.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The project would not involve any activities that could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The limited

activities associated with construction of the project would occur completely off of public roadways. No impact would occur.

h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Although the project is located in an area with vegetation that could pose a threat for wildland fires, the Project would not involve activities likely to start a fire. Therefore, implementation of the Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. No impact would occur.

9. HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☒	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation?	☐	☒	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☒	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒
j) Result in inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project is located within the Gualala River Watershed hydrologic unit #18010109. The surface waters onsite are tributary to Wild Cattle Canyon tributary to Marshall Creek which is tributary to the South Fork Gualala River subwatershed. Unnamed Stream 1 (well) can be located on the USGS topographic map which designates it as a blue-line stream; this unnamed stream has been classified as a Class II. Unnamed Stream 2 (reservoir) is classified as Class III. The Gualala River is listed on the State Water Board's 303(d) list for impaired water bodies for sedimentation. The project is located approximately 7.6 miles east of the Pacific Ocean and is not subject to seiche, tsunami, or flooding from 100-year storm events.

DISCUSSION

a) Violate any water quality standards or waste discharge requirements?

Activities associated with construction of the well, infrastructure, and reservoir are not anticipated to involve any long-term violation of water quality standards. Temporary impacts from the initial construction of the project may impact water quality through construction debris or use of various construction materials and supplies. Therefore, some potential exists for these substances to end into waters during construction. Inclusion of the following permit terms, substantially as follows, in any permit or license issued pursuant to A032139 would reduce potential impacts to water quality to a less-than-significant level:

> *No debris, soil, silt, cement that has not set, oil, or other such foreign substance will be allowed to enter into or be placed where it may be washed by rainfall runoff into the waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area.*

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

The Project does not include any activities that would directly affect groundwater or result in any substantial indirect effects on groundwater supplies or recharge. No impact would occur.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation?

The project involves construction of a 12 acre-foot reservoir on an ephemeral stream which will capture the runoff from Unnamed Stream 2. Any flow that is captured by the reservoir that exceeds the capacity of the reservoir will be directed through the reservoir's spillway. The spillway will be constructed in a manner that will not alter the existing natural erosional patterns caused by runoff from Unnamed Stream 2.

Initial construction of the reservoir and well will cause some removal of vegetation in the project site which could increase erosion. Long-term operations of the reservoir through irrigation of the vineyard could also increase erosion. Implementation of an erosion control plan for the construction and operation of the Project would reduce impacts to less-than-significant. The erosion control plan would at a minimal include, but not limited to, the following best management practices preservation of existing vegetation, hydraulic mulch, hydroseeding, soil binders, straw mulch, geotextiles and mats, wood mulching, earth dikes and drainage swales, steambank stabilization, compost blanket, soil preparation, and non-vegetative stabilization. The erosion control plan will also include a schedule that outlines implementation and duration of control measures, and include actions to follow when any of the erosion control measures fail to achieve the intended purpose.

The following permit term, substantially as follows, in any permit or license issued pursuant to A032139 will reduce potential impacts to water quality to a less-than-significant level:

Prior to starting construction, right holder shall submit an erosion control plan for approval by the Deputy Director for Water Rights. Said plan shall include measures to prevent sediment from leaving the construction area and entering waters of the State before, during, and after construction.

Within six months of the issuance date of this right, an erosion control plan shall be submitted to and approved by the Deputy Director for Water Rights. Said plan shall include measures to prevent sediment from leaving the place of use and entering waters of the State. Right holder shall provide the Division of Water Rights with evidence that substantiates that the erosion control measures contained in the plan are functioning properly every five years after installation as an enclosure to the current annual report or whenever requested by the Division of Water Rights.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?

Please refer to discussion under question (c) above. Implementation of the Project would not substantially alter drainage patterns and on- or off-site flooding. This potential impact would be less-than-significant.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Please refer to discussion under question (c) above. Implementation of the Project would not substantially contribute runoff water. This potential impact would be less-than-significant.

f) Otherwise substantially degrade water quality and/or water supply?

As discussed in Section 4: Biological Resources, adequate water quantity is essential for fish species to live, spawn, and move within the Gualala River watershed. Although the Project does not present a physical barrier to fish movement, it may have the potential to reduce the availability of water for fish downstream within the watershed. In addition to ensuring adequate water supply for fisheries resources, the State Water Board has a responsibility to evaluate potential effects of the Project on parties that hold water rights of higher priority downstream of the Project. Therefore, the focus of impact analysis will be on the amount of water that can be diverted, the timing of diversions, and a minimum amount of water that should be left instream.

Before a water right application can be approved and a permit issued, the State Water Board must find that there is unappropriated water available for appropriation. (Wat. Code, § 1375, 1243 et seq.; Cal. Code Regs., tit. 23, § 695.) When determining the availability of unappropriated water, the State Water Board must consider the amount of water required for (1) prior water rights; (2) recreation; (3) the preservation and enhancement of fish and wildlife resources; and (4) the protection of instream beneficial uses. The State Water Board requires the development of a Water Availability Analysis (WAA) in order to facilitate a determination regarding the availability of unappropriated water.

The State Water Board has adopted a Policy for Maintaining Instream Flows in Northern California Coastal Streams (Policy) that establishes principles and guidelines for maintaining

instream flows in northern California coastal streams for the purposes of water right administration (Wat. Code, § 1259.4, subd. (b).). The Policy contains guidelines for evaluating whether a proposed water diversion, in combination with existing diversions in a watershed, may affect instream flows needed for the protection of fishery resources. Accordingly, the Policy prescribes protective measures regarding the season of diversion, minimum bypass flow, and maximum cumulative diversion. The Policy also contains limitations on the construction of new onstream dams and approval of existing onstream dams to reduce adverse impacts to fishery resources.

The Policy applies to all streams and tributaries discharging to the Pacific Ocean from the mouth of the Mattole River south to San Francisco, and all streams and tributaries discharding to northern San Pablo Bay. This area encompasses all of Marin and Sonoma counties, and portions of Napa, Mendocino and Humboldt counties.

The Policy allows, however, that certain aspects of the Policy may be satisfied by adherence to the 2002 *Draft Guidelines for Maintaining Instream Flows to Protect Fisheries Resources Downstream of Water Diversions in Mid-California Coastal Streams* (Guidelines). The Guidelines were recommended for use by permitting agencies (including the Division), planning agencies, and water resources development interests when evaluating proposals to divert and use water within the same geographic area as the Policy. The Guidelines recommend that terms and conditions be included in new water right permits for small diversions to protect fishery resources in the absence of site-specific, biological and hydrologic assessments.

For the Project, the State Water Board will process the water availability aspects of the application using the Guidelines. The relevant aspects of the Guidelines to the Project are:

- The Guidelines provide a process for assessing the potential for cumulative impacts of multiple diversion projects on downstream fisheries habitat. This process includes calculating the Cumulative Flow Impairment Index (CFII). The CFII calculation, which is essentially a seasonal volumetric comparison of the face value of water rights of record versus estimated unimpaired flow, is used to determine whether more detailed studies are required to assess the cumulative effects of existing and pending projects in a watershed of interest.

- The Guidelines also recommend a bypass flow that adequately protects salmonids and aquatic resources downstream of any POD. Specifically, a bypass not less than the February Median Flow (FMF) at the well is recommended absent a site-specific study. The February Median Flow is a conservatively high bypass flow that conserves “typical” winter flows to which native fishes are adapted to.

- The Guidelines have special circumstances that allows for onstream reservoirs with no stream flow or fish passage requirements when a proposed diversion is located (1) in a stream where fishes or non-fish aquatic species were not historically present upstream, and (2) where the project could not contribute to a cumulative reduction of more than 10% of the natural instantaneous flow in each reach where fish are at least seasonally present, and (3) where the project would not cause the dewatering of any fishless stream reach supporting non-fish aquatic species.

A combined WAA/CFII report for the Project was completed by State Water Board staff on August 28, 2013 (See Appendix E: Water Availability Analysis and Cumulative Flow Impairment Index Report). The WAA calculations were completed for the diversion of all 14 ac-ft from the

well (POD 1), because at the time the reservoir was considered to be an offstream feature. The Cumulative Flow Impairment Index (CFII) was calculated for specific Points of Interest (POI), and the results of those calculations are shown below:

POI	Description	CFII (%)
1	The point immediately above POD 1 (well)	9.18
2	The point immediately downstream of the confluence of Unnamed Stream and Wild Cattle Canyon	1.04
3	The point immediately downstream of the confluence of Wild Cattle Canyon and Marshall Creek	0.12
4	The point immediately downstream of the confluence of Marshall Creek and South Fork Gualala River	0.14

The CFII values for POIs 2, 3, and 4 are well below 5%. According to the Guidelines, if the CFII at a POI is less than 5%, no additional analysis is required provided that other provisions of the Guidelines are followed. The CFII value for POI 1, or at the well, is above 5% but is below 10%. According to the Guidelines, additional hydrologic analysis is necessary to demonstrate that the project will not cause or exacerbate significant adverse cumulative effects on instream resources. Consultation with CDFW staff has determined that additional hydrologic analysis is not necessary as long as a minimum bypass flow equivalent to the FMF (0.29 cfs) is maintained at the well (POD 1). As stated above, the FMF is a conservatively high bypass flow that conserves "typical" winter flows to which native fishes are adapted to.

Following a July 10, 2013 site visit, it was determined that the reservoir was onstream and thus would result in diversion of water from Unnamed Stream 2. As stated above, the Guidelines allow for onstream reservoirs as long as all three exemption criteria are met. The reservoir is located in a stream where fishes or non-fish aquatic species were not historically present upstream. Since the majority of water diverted that will be used to fill the reservoir will be from the well, minimal flow will be diverted from Unnamed Stream 2 for which the reservoir is located on; the Project will not contribute to a cumulative reduction of more than 10% of the natural instantaneous flow in any reach downstream where fish are at least seasonally present. The Project will also not cause the dewatering of any fishless stream reach supporting non-fish aquatic species since minimal flow will be diverted from Unnamed Stream 2. The reservoir meets all three exemption criteria for an onstream reservoir therefore, minimum bypass flow and fish passage requirements are not necessary at the reservoir. Furthermore, due to the presence of the ULA immediately downstream of the reservoir and the lack of suitable habitat between the ULA and Wild Cattle Canyon, no additional CFII analysis was necessary and no minimum bypass is required at the reservoir (POD 2).

The potential of the Project to result in a cumulative negative impact on downstream fisheries habitat is minimal provided that a minimum bypass flow is maintained at the well.

Inclusion of the following permit term, substantially as follows, in any permit or license issued pursuant to A032139 will reduce potential impacts to water supply to a less-than-significant level:

> *No water shall be diverted under this right unless the flow in the Unnamed Stream is at or above 0.29 cubic foot per second, as determined at Point of Diversion 1.*

The Project involves diversion to storage by means of a well on Unnamed Stream 1 and a reservoir on Unnamed Stream 2. The Project has the potential to dewater sections of the stream where fish and other aquatic species may be present by leaving the species stranded if too much water is diverted at any one time. Limiting the rate of diversion from the well on Unnamed Stream 1 will reduce the likelihood that any downstream sections of the stream would be dewatered. As described above, the reservoir will be located immediately upstream of the ULA, and suitable habitat for fisheries resources is lacking between the ULA and Wild Cattle Canyon. Establishment of minimum bypass flows for onstream reservoirs is used in lieu of a limit on the rate of diversion for an onstream reservoir. However, as stated above, no minimum bypass flow is required for the reservoir because it meets the exemption criteria for onstream reservoirs.

Inclusion of the following permit term, substantially as follows, in any permit or license issued pursuant to A032139 will reduce potential impacts to water supply to a less-than-significant level:

> *The maximum rate of diversion to offstream storage shall not exceed 0.22 cubic foot per second.*

Precipitation varies throughout the year with the majority of precipitation occurring during winter months. The Guidelines recommend limiting the season of diversion to December 15 of each year to March 31of the succeeding year to correspond with periods when winter flows are usually at their highest and diversion of water is less likely to adversely affect fishery resources. The Project requests a season of diversion from October 15 of each year to May 15 of the succeeding year.

Following the July 10, 2013 site visit, it was determined that the Project's requested diversion season would be acceptable, since the vast majority of water diverted to the reservoir will be from the well and because of the reservoir's location is high in the watershed. The well is also located high in the watershed, and due to the nature of the operation of the well, there is a low potential for the diversion at the well to impact fisheries resources. Inclusion of the permit terms listed above requiring a minimum bypass flow and maximum rate of diversion to storage at the well will further reduce the potential for impacts to fisheries resources. CDFW has also accepted the October 15 to May 15 season of diversion as stated in the Applicant's proposed LSAA (Appendix A: *Draft Lake and Streambed Alteration Agreement*).

Inclusion of the following permit term, substantially as follows, in any permit or license issued pursuant to A032139 will reduce potential impacts to water supply to a less-than-significant level:

> *The water appropriated shall be limited to the quantity which can be beneficially used and shall not exceed 0.22 cubic foot per second by direct diversion to be diverted and 12 acre-feet per year by storage to be collected from October 15 of each year to May 15 of the succeeding year. The total amount of water to be taken from the source (direct diversion plus collection to storage) for all uses shall not exceed 14 acre-feet per year.*

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The project would not place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map. No impact would occur.

h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

Please refer to discussion under question (g) above. Implementation of the Project would not place structures that would impede or redirect flood flows within a 100-year flood hazard area. No impact would occur.

i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

Please refer to discussion under question (g) above. Implementation of the Project does not include any components or activities that would expose people or structures to a significant risk of loss, injury, or death from flooding. No impact would occur.

j) Result in inundation by seiche, tsunami, or mudflow?

The project would not result in inundation by seiche, tsunami, or mudflow because it is geographically isolated from these types of events. No impact would occur.

10. LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

Sonoma County adopted a Land Use Element to their General Plan in 2008. The Land Use Element includes policies that guide growth and the development and use of land in Sonoma County through 2020. The Land Use Element of the general plan designates the project area as Resources and Rural Development. Permitted land uses within this category include agricultural production activities, among other activities (Sonoma County 2008).

DISCUSSION

a) Physically divide an establish community?

The project area is located in a rural environment on privately owned property with limited development in and adjacent to the project area. The Project would not divide an established community. There would be no impact.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal plan, or zoning ordinance) adopted for the purpose of avoiding or mitigation an environmental effect?

The Project would coincide with land uses in the project area (e.g., agricultural) and would not conflict with any land use plan or policies. There would be no impact.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan or natural community conservation plan?

No habitat conservation plan or natural community conservation plan currently exists for the project area or immediate vicinity. The Project would not have the potential to conflict with any existing habitat conservation plans or natural community conservation plans. There would be no impact.

11. MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The State of California classifies mineral lands throughout the state and has designated certain mineral bearing areas as being of regional significance. Local agencies must adopt mineral management policies that recognize mineral information provided by the state, assist in the management of land use that affect areas of statewide and regional significance, and emphasize the conservation and development of identified mineral deposits (Sonoma County 2008).

Various minerals have been mined in Sonoma County during the past century however aggregate products are now the dominant commercial minerals. Sonoma County has adopted the Aggregate Resources Management (ARM) plan for obtaining future supplies of aggregate material. This plan serves as the state-mandated mineral management policy for the county. During the process of adoption of the plan, Sonoma County considered the aggregate resource areas subsequently classified as MRZ-2 by the State Geologist (Sonoma County 2008). The project area is not located in a mineral resource deposit area (Stinson et al. 1983).

DISCUSSION

a – b) The limited amount of earth-moving activity associated with the project would have no direct or indirect effect on known mineral resources or any delineated mineral resource recovery sites. There would be no impact.

12. NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	☐	☐	☐	☒
b) Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☒
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☒
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The closest airport to the project (i.e., Sonoma County Airport) is located approximately 20 miles to the southeast. The nearest resident to the project is location is one mile northwest of the project site.

DISCUSSION

a – f) Activities associated with construction of the reservoir and associated facilities would generate temporary, short-term increases in noise levels at the project site for the duration of the construction period. Operation of the reservoir and well would generate minimal long-term noise levels which would be typical of the agricultural area where the project is located. Overall, noise levels would remain below standards set in the Sonoma County General Plan. For these reasons, temporary noise impacts from the construction would be less-than-significant, otherwise there would be no impact.

13. POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing homes, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project area is rural in nature with scattered housing and low densities of populations.

DISCUSSION

a – c) The Project would involve construction of a well, reservoir and piping infrastructure, as well as diversion of water for irrigation of existing vineyards. No additional housing structures would be constructed. No impacts on population growth or increased housing would occur as a result of implementing the Project. There would be no impact.

14. PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project area is served by Sonoma County Public Services.

DISCUSSION

a) The Project would involve construction of a well, reservoir and piping infrastructure, as well as diversion of water for irrigation of existing vineyards. The project would not generate a need for new or physically altered governmental facilities. There would be no impact.

15. RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

There are no recreational facilities at the project site. The surrounding project area is primarily private lands without public recreational facilities.

DISCUSSION

a – b) The Project would involve construction of a well, reservoir and piping infrastructure, as well as diversion of water for irrigation of existing vineyards. The project would not generate a need for new or an expansion of recreational facilities. There would be no impact.

16. TRANSPORTATION/TRAFFIC

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐
b) Exceed, individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Result in inadequate parking capacity?	☐	☐	☐	☒
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The project area is rural in nature and is located just south of King Ridge Road. Regional access to the project area is readily available through King Ridge Road however, access to the project site is controlled by the property owner. King Ridge Road is a rural, two-lane county road without high traffic volumes.

DISCUSSION

a – g) The Project would not require any change in transportation systems. During project construction, a temporary and minor increase in traffic volumes could occur along King Ridge Road, or on other minor roads. However, this minor increase in traffic would not affect roadway operations in the project area because the number of new trips generated by the project would be minimal. In addition, the temporary and minor increase in truck traffic that could result during project construction would not require any changes or upgrades to the local road system. There would be a slight increase in traffic during construction resulting in a less-than-significant impact; otherwise there would be no impact.

17. UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	☐	☐	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The rural project area is served by Sonoma County and Pacific Gas & Electric Company facilities.

DISCUSSION

a – g) The Project would involve construction of a well, reservoir and piping infrastructure, as well as diversion of water for irrigation of existing vineyards. The pump utilized for the well will be operated by diesel and will not need to have electric services extended to the project area. The project would not generate a need for new or expansion of any utility and service systems. There would be no impact.

18. MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Mandatory Findings of Significance.				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Authority: Public Resources Code Sections 21083 and 21087.
Reference: Public Resources Code Sections 21080(c), 21080.1, 21080.3, 21082.1, 21083, 21083.3, 21093, 21094, 21151; *Sundstrom v. County of Mendocino*, 202 Cal.App.3d 296 (1988); *Leonoff v. Monterey Board of Supervisors*, 222 Cal.App.3d 1337 (1990).

DISCUSSION

a – c) As discussed in preceding sections, the Project has a potential to degrade the quality of the environment by impacts to air quality, biological resources, cultural resources, and hydrology and water quality. However, with the implementation of the identified permit terms, potential impacts would be reduced to less-than-significant levels. Potential adverse environmental impacts in combinations with impacts of other past, present, and future projects, could contribute to cumulatively significant effects on the environment. However, with implementation of the identified permit terms, the Project would avoid or minimize potential impacts and would not result in cumulatively considerable environmental impacts. No potential significant adverse effects to human have been identified.

III. DETERMINATION

On the basis of this initial evaluation:

I find that the Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	☐
I find that although the Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent (See Appendix F). A MITIGATED NEGATIVE DECLARATION will be prepared.	☒
I find that the Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	☐
I find that the Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.	☐
I find that although the Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Project, nothing further is required.	☐

Prepared By:

ORIGINAL SIGNED BY — May 8, 2014

Justine Herrig, Environmental Scientist — Date
Coastal Streams Unit

Reviewed By:

ORIGINAL SIGNED BY — May 7, 2014

Guadalupe S. Chavarria, Principal Engineer — Date

ORIGINAL SIGNED BY — May 9, 2014

Matthew McCarthy — Date
Coastal Streams Unit

Authority: Public Resources Code Sections 21083, 21084, 21084.1, and 21087.
Reference: Public Resources Code Sections 21080(c), 21080.1, 21080.3, 21082.1, 21083, 21083.1 through 21083.3, 21083.6 through 21083.9, 21084.1, 21093, 21094, 21151; *Sundstrom v. County of Mendocino*, 202 Cal. App. 3d 296 (1988); *Leonoff v. Monterey Board of Supervisors,* 222 Cal. App. 3d 1337 (1990).

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APPENDICES

Appendix A: California Department of Fish and Wildlife Lake and Streambed Alteration Agreement (Draft)

Appendix B: Dust Control and Mitigation Plan

Appendix C: Biological Review

Appendix D: Cultural Resources Report

Appendix E: Water Availability Analysis and Cumulative Flow Impairment Index Report

Appendix F: Draft Permit for Application 32139